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INSPEC

File : INSPEC

SS	Results	
1	1483235	ANALYSIS OR ANALY+
2	223957	PARALLEL+
3	7239	WALK
4	36658	TREE
5	289479	MINIM+
6	16509	WALK+
7	25947	NODE
8	55222	HIERARCH+
9	112385	PATTERN#
10	52	TREE AND WALK###
11	2915	PRUN+
12	475	SUBTREE
13	8	1 AND 10
14	50420	1 AND 2
15	123	(3 OR 6) AND 14
16	100	NODE# AND 6
17	3	14 AND 16
18	36772	(4 OR 12)
19	22	16 AND 18
20	130	13 OR 15
21	100	16
22	1483235	ANALYSIS OR ANALY+
23	223957	PARALLEL+
24	7239	WALK
25	36658	TREE
26	289479	MINIM+
27	16509	WALK+
28	25947	NODE
29	55222	HIERARCH+
30	112385	PATTERN#
31	52	TREE AND WALK###
32	2915	PRUN+
33	475	SUBTREE
34	8	22 AND 31
35	50420	22 AND 23
36	123	(24 OR 27) AND 35
37	100	NODE# AND 27
38	3	35 AND 37
39	36772	(25 OR 33)
40	22	37 AND 39
41	130	34 OR 36
42	100	37

Search statement 43

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Search statement 43

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INSPEC

1/22 INSPEC - (C) INSPEC
AN : 6694890
ABN : C2000-10-4240P-008
TI : A method for evaluating the expected load of dynamic tree embeddings in hypercubes.
AU : Keqin Li
OS : Dept. of Math. & Comput. Sci.; State Univ. of New York; New Paltz; NY; USA
SO : International Journal of Foundations of Computer Science, vol.11, no.2, pp. 207-230, June 2000
PU : World Scientific
CP : Singapore
DT : J (Journal Paper)
LA : English
JC : IFCSEN
NU : ISSN 0129-0541
PY : 2000
SI : 0129-0541(200006)11:2L.207:MEEL;1-2
AB : A key issue in performing tree structured parallel computations is to distribute process components of a parallel program over processors in a parallel computer at run time such that both the maximum load and dilation are minimized. This paper presents the application of recurrence relations in studying the performance of a dynamic tree embedding algorithm in hypercubes. We develop recurrence relations that characterize the expected load in randomized tree embeddings where, a tree grows by letting its nodes to take random walks of short distance. By using these recurrence relations, we are able to calculate the expected load on each processor. Therefore, for constant dilation embeddings, we are able to evaluate expected loads numerically and analytically. The applicability of recurrence relations is due to the recursive structure of trees and the fact that embeddings of the subtrees of a process node are independent to each other. Our methodology does not depend on the hypercube topology. Hence, it can be applied to studying dynamic tree growing in other networks. (36 Ref.)
IT : hypercube networks; parallel programming; probability; random processes; topology; trees (mathematics)
ST : randomised tree embedding; hypercubes; parallel program; recurrence relations; recursive structure; random walk
TC : TM (Theoretical/Mathematical)
CC : C4240P Parallel programming and algorithm theory;
C6110P Parallel programming;
C6150N Distributed systems software;
C1140Z Other topics in statistics;
C1160 Combinatorial mathematics

2/22 INSPEC - (C) INSPEC
AN : 6653907
ABN : C2000-09-1230-002
TI : ANTS: agents on networks, trees, and subgraphs.
AU : Wagner IA; Lindenbaum M; Bruckstein AM
OS : IBM Haifa Res. Lab.; Israel
SO : Future Generation Computer Systems, vol.16, no.8, pp. 915-926, June

2/22 INSPEC - (C) INSPEC
AN : 6653907
ABN : C2000-09-1230-002
TI : ANTS: agents on networks, trees, and subgraphs.
AU : Wagner IA; Lindenbaum M; Bruckstein AM
OS : IBM Haifa Res. Lab.; Israel
SO : Future Generation Computer Systems, vol.16, no.8, pp. 915-926, June 2000
PU : Elsevier
CP : Netherlands
DT : J (Journal Paper)
LA : English
JC : FGSEVI
NU : ISSN 0167-739X
PY : 2000
CPN : 0167-739X/2000/ $20.00
SI : 0167-739X(200006)16:8L.915:AANT;1-R
DN : S0167-739X(00)00045-5
AB : Efficient exploration of large networks is a central issue in data mining and network maintenance applications. In most existing work there is a distinction between the active 'searcher' which both executes the algorithm and holds the memory and the passive 'searched graph' over which the searcher has no control at all. Large dynamic networks like the Internet, where the nodes are powerful computers and the links have narrow bandwidth and are heavily-loaded, call for a different paradigm, in which a noncentralized group of one or more lightweight autonomous agents traverse the network in a completely distributed and parallelizable way. Potential advantages of such a paradigm would be fault tolerance against network and agent failures, and reduced load on the busy nodes due to the small amount of memory and computing resources required by the agent in each node. Algorithms for network covering based on this paradigm could be used in today's Internet as a support for data mining and network control algorithms. Recently, a vertex ant walk (VAW) method has been suggested (Wagner, Lindenbaum, and Bruckstein (1998)) for searching an undirected, connected graph by an a(ge)nt that walks along the edges of the graph, occasionally leaving 'pheromone' traces at nodes, and using those traces to guide its exploration. It was shown there that the ant can cover a static graph within time nd, where n is the number of vertices and d the diameter of the graph. In this work we further investigate the performance of the VAW method on dynamic graphs, where edges may appear or disappear during the search process. In particular we prove that (a) if a certain spanning subgraph S is stable during the period of covering, then the VAW method is guaranteed to cover the graph within time ndS, where dS is the diameter of S, and (b) if a failure occurs on each edge with probability p, then the expected cover time is bounded from above by nd((log Delta /log(1/p))-((1+p)/(1-p))), where a is the maximum vertex degree in the graph. We also show that (c) if G is Delta static tree then it is covered within time 2n. (29 Ref.)
IT : data mining; fault tolerance; graph theory; search problems; software agents
ST : network maintenance; autonomous agents; network covering; vertex ant walk; dynamic graphs; edge failure model; dynamic graph search; edge

ant walk; cover time
TC : TM (Theoretical/Mathematical)
CC : C1230 Artificial intelligence;
C1160 Combinatorial mathematics;
C6170 Expert systems;
C6170K Knowledge engineering techniques
CPR : Copyright 2000, IEE

3/22 INSPEC - (C) INSPEC
AN : 6643365
ABN : C2000-08-4260-043
TI : On minimum diameter spanning trees under reload costs.
AU : Wirth HC; Steffan J
ED : Widmayer P; Neyer G; Eidenbenz S
OS : Dept. of Comput. Sci.; Wurzburg Univ.; Germany
SO : Graph-Theoretic Concepts in Computer Science. 25th International Workshop, WG'99. Proceedings (Lecture Notes in Computer Science Vol.1665), pp. 78-88, Published: Berlin, Germany, 1999, xi+414 pp.
PU : Springer-Verlag
CP : Germany
DT : PA (Conference Paper)
LA : English
NU : ISBN 3540667318
PY : 1999
CONF : Graph-Theoretic Concepts in Computer Science. 25th International Workshop, WG'99. Proceedings (Lecture Notes in Computer Science Vol.1665), Ascona, Switzerland, 17-19 June 1999
AB : We examine a network design problem under the reload cost model. Given an undirected edge colored graph, reload costs arise at the nodes of the graph and are depending on the colors of the pair of edges used by a walk through the node. In this paper we consider the problem of finding a spanning tree of minimum diameter with respect to the underlying reload costs. We present hardness results and lower bounds for the approximability even on graphs with maximum degree 5. On the other hand we provide an exact algorithm for graphs of maximum degree 3. (5 Ref.)
IT : computational geometry; graph colouring; trees (mathematics)
ST : minimum diameter spanning trees; reload costs; undirected edge colored graph; hardness results; lower bounds
TC : PR (Practical); TM (Theoretical/Mathematical)
CC : C4260 Computational geometry;
C1160 Combinatorial mathematics
CPR : Copyright 2000, IEE

4/22 INSPEC - (C) INSPEC
AN : 6237168
ABN : C1999-06-4220-008
TI : Trips on trees.
AU : Engelfriet J; Jan Hoogeboom H; Van Best JP
OS : Dept. of Comput. Sci.; Leiden Univ.; Netherlands
SO : Acta Cybernetica, vol.14, no.1; pp. 51-64, 1999
PU : Jozsef Attila Univ. Dept. Inf
CP : Hungary
DT : J (Journal Paper)

ant walk; cover time
TC : TM (Theoretical/Mathematical)
CC : C1230 Artificial intelligence;
C1160 Combinatorial mathematics;
C6170 Expert systems;
C6170K Knowledge engineering techniques
CPR : Copyright 2000, IEE

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OS : Dept. of Comput. Sci.; Wurzburg Univ.; Germany
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PU : Springer-Verlag
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DT : PA (Conference Paper)
LA : English
NU : ISBN 3540667318
PY : 1999
CONF : Graph-Theoretic Concepts in Computer Science. 25th International Workshop, WG'99. Proceedings (Lecture Notes in Computer Science Vol.1665), Ascona, Switzerland, 17-19 June 1999
AB : We examine a network design problem under the reload cost model. Given an undirected edge colored graph, reload costs arise at the nodes of the graph and are depending on the colors of the pair of edges used by a walk through the node. In this paper we consider the problem of finding a spanning tree of minimum diameter with respect to the underlying reload costs. We present hardness results and lower bounds for the approximability even on graphs with maximum degree 5. On the other hand we provide an exact algorithm for graphs of maximum degree 3. (5 Ref.)
IT : computational geometry; graph colouring; trees (mathematics)
ST : minimum diameter spanning trees; reload costs; undirected edge colored graph; hardness results; lower bounds
TC : PR (Practical); TM (Theoretical/Mathematical)
CC : C4260 Computational geometry;
C1160 Combinatorial mathematics
CPR : Copyright 2000, IEE

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SO : Acta Cybernetica, vol.14, no.1, pp. 51-64, 1999
PU : Jozsef Attila Univ. Dept. Inf
CP : Hungary
DT : J (Journal Paper)

6/22 INSPEC - (C) INSPEC
AN : 5773979
ABN : C9801-4230M-019
TI : Barrel shifter-a close approximation to the completely connected network in supporting dynamic tree structured computations.
AU : Keqin Li
OS : Dept. of Math. & Comput. Sci; State Univ. of New York; New Paltz; NY; USA
SO : Proceedings of the IEEE 1997 National Aerospace and Electronics Conference. NAECON 1997 (Cat. No.97CH36015), Pt. vol.1, pp. 202-215 vol.1, Published: New York, NY, USA, 1997, 2 vol. ix+1079 pp.
PU : IEEE
CP : USA
DT : PA (Conference Paper)
LA : English
NU : ISBN 0780337255
PY : 1997
CONF : Proceedings of the IEEE 1997 National Aerospace and Electronics Conference. NAECON 1997 (Cat. No.97CH36015), Dayton, OH, USA, 14-17 July 1997, Sponsored by: Dayton Sect. IEEE, Aerosp. & Electron. Syst. Soc. IEEE
CPN : CH36015-97/97/0000-0202 $1.00
AB : High performance computing requires high quality load distribution of processes of a parallel application over processors in a parallel computer at runtime such that both maximum load and dilation are minimized. The performance of a simple randomized tree growing algorithm on the barrel shifter and the Illiac networks is studied in this paper. The algorithm spreads tree nodes by letting them to take random walks to neighboring processors. We develop recurrence relations that characterize expected loads on all processors. We find that the performance ratio of probabilistic dilation-1 tree embedding in the barrel shifter network with N processors (a network with node degree O(log N)) is very close to that in the completely connected network of the same size. However, the hypercube network, which also has node degree log N, does not have such a capability. As a matter of factor, even the Illiac network, which is a subnetwork of the barrel shifter, has an optimal asymptotic performance ratio. (30 Ref.)
IT : multiprocessor interconnection networks; parallel processing; performance evaluation; probability; tree data structures
ST : completely connected network; barrel shifter network; dynamic tree structured computations; parallel computer; randomized tree growing algorithm; Illiac network; recurrence relations; probabilistic dilation-1 tree embedding; optimal asymptotic performance ratio
TC : TM (Theoretical/Mathematical)
CC : C4230M Multiprocessor interconnection;
C5220P Parallel architecture;
C5470 Performance evaluation and testing
CPR : Copyright 1997, IEE

7/22 INSPEC - (C) INSPEC
AN : 5670867
ABN : C9710-4210L-012
TI : Monadic second order logic and node relations on graphs and trees.
AU : Bloem R; Engelfriet J

8/22 INSPEC - (C) INSPEC
AN : 5455814
ABN : C9702-6130B-010
TI : Hierarchical image caching for accelerated walkthroughs of complex environments.
AU : Shade J; Lischinski D; Salesin DH; DeRose T; Snyder J
OS : Washington Univ.; WA; USA
SO : Computer Graphics Proceedings. SIGGRAPH '96, pp. 75-82, Published: New York, NY, USA, 1996, 528 pp.
PU : ACM
CP : USA
DT : PA (Conference Paper)
LA : English
NU : ISBN 0897917464
PY : 1996
CONF : Computer Graphics Proceedings. SIGGRAPH '96, New Orleans, LA, USA, 4-9 Aug. 1996, Sponsored by: ACM
CPN : 0 89791 746 4/96/008. $3.50
AB : We present a new method that utilizes path coherence to accelerate walkthroughs of geometrically complex static scenes. As a preprocessing step, our method constructs a BSP-tree that hierarchically partitions the geometric primitives in the scene. In the course of a walkthrough, images of nodes at various levels of the hierarchy are cached for reuse in subsequent frames. A cached image is reused by texture-mapping it onto a single quadrilateral that is drawn instead of the geometry contained in the corresponding node. Visual artifacts are kept under control by using an error metric that quantifies the discrepancy between the appearance of the geometry contained in a node and the cached image. The new method is shown to achieve speedups of an order of magnitude for walkthroughs of a complex outdoor scene, with little or no loss in rendering quality. (20 Ref.)
IT : cache storage; image texture; rendering (computer graphics); tree data structures
ST : hierarchical image caching; accelerated walkthroughs; complex environments; path coherence; geometrically complex static scenes; BSP-tree; cached image; texture-mapping; visual artifacts; error metric; complex outdoor scene; rendering quality; image-based rendering; spatial hierarchy; texture mapping; level of detail
TC : PR (Practical)
CC : C6130B Graphics techniques;
C6120 File organisation

Search statement 48

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12/22 INSPEC - (C) INSPEC
AN : 4072319
TI : Incremental attribute evaluation.

13/22 INSPEC - (C) INSPEC